

ABSTRACT

A time division duplex (TDD) type power amplification module, through which a transmitting signal is amplified and a receiving signal is not amplified without amplifying the receiving signal, reduces a power consumption and realizes a class I bluetooth function by being combined with a class II bluetooth module. The TDD type power amplification module includes a terminal through which a TDD control signal is transmitted, a first port through which a transmitting signal is inputted and a receiving signal is outputted, a second port through which the transmitting signal is outputted and the receiving signal is inputted, first and second transmission lines coupled between the first and second ports to have a quarter of a wavelength of the transmitting and receiving signals and to form a receiving signal path of the receiving signal, a power amplifier unit amplifying the transmitting signal inputted through the first port to output the amplified transmitting signal to the second port, first and second switching units provided between the first and second ports and the power amplifier unit, and forming and blocking a transmitting and receiving signal path between the first port and the second port through the power amplifier unit, a third switching unit provided between a junction of the first and second transmission lines and ground to be alternatively turned on and off according to a TDD control signal so as to maintain or block a transmission of the receiving signal, and third and fourth transmission lines coupled between the terminal and the first and second switching units to transmit the TDD control signal to the first and second switching units as a bias signal, and having a quarter of a wavelength of the transmitting and receiving signals.